NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

The National Aeronautics and Space Administration (NASA) was established by the National Aeronautics and Space Act of 1958 to conduct space and aeronautical research, development, and flight activities for peaceful purposes designed to maintain United States preeminence in aeronautics and space. NASA's unique mission of exploration, discovery, and innovation is intended to preserve the United States' role as both a leader in world aviation and as the pre-eminent space-faring nation. It is NASA's mission to: advance human exploration, use and development of space; advance and communicate scientific knowledge and understanding of the Earth, the Solar System and the Universe; and research, develop, verify and transfer advanced aeronautics and space technologies.

The Committee recommends $16,471,050,000 for the National Aeronautics and Space Administration, an increase of $14,650,000 above the budget request and $274,650,000 above the fiscal year 2005 inclusive of $126,000,000 in emergency funding provided in Public Law 108–324.

The Committee is supportive of NASA's new vision and mission for space exploration and the recommendation includes funds for the Administration's priorities for these activities. The Committee is very concerned about the need to maintain the nation's leadership in science and technology. To this end, the Committee has not agreed to the Administration's proposed reductions to the aeronautics research program or science programs, and has fully restored aeronautics to the fiscal year 2005 level and partially restored the proposed reduction to science programs. However, given the serious nature of the budget deficit facing the nation the Committee was forced to make a number of difficult choices in allocating the scarce resources available to NASA and has proposed what it believes is a more balanced budget that both supports the new vision but does not abandon NASA's other core functions.

The Committee supports the premise outlined by the NASA Administrator in NASA's fiscal year 2005 Operating Plan that the agency must set clear priorities to remain within the budget while ensuring adequate funding for the clear directions identified by the President and Congress. The Committee supports the Administrator's plan to accelerate development of the Crew Exploration Vehicle (CEV) to minimize the gap between the retirement of the Space Shuttle and the first operational flight of the CEV. To help achieve this goal, the Committee supports the proposed "non traditional" competitive acquisition of a United States "earth to orbit" crew and/or cargo transfer capability. The Committee believes this approach offers affordable and credible risk mitigation for accelerating post-shuttle United States human spaceflight.

The Committee also supports NASA's objective to restructure Project Prometheus to focus nuclear technology efforts on near-term requirements for human and robotic missions. Finally, the Committee supports NASA's objective to rebalance the content of its overall science portfolio to ensure appropriate resources among planetary science, Earth science, solar physics and astronomy. The Committee understands that NASA is currently reviewing the implications of these objectives and directs NASA to report to the

Committee on the outcome of these reviews as soon as possible after their completion.

The Committee has agreed to adopt NASA's new proposed budget structure. The Committee understands that NASA wishes to adopt a budget structure that is consistent with its new vision and mission for robotic and manned space exploration. However, the Committee notes that in the past few years NASA has proposed changes to its account and budget structure every year. Therefore, the Committee expects no further changes to the budget structure. In addition, the Committee remains concerned about the process of setting NASA priorities in the operating plan rather than through the normal budget and appropriations process. Hereafter, the Committee expects the operating plan to only address minor adjustments or changes resulting from unforeseen contingencies.

The Committee is extremely disappointed in the lack of detail of funding provided in the fiscal year 2006 congressional budget justification. NASA is reminded that the primary purpose of budget justifications is to provide needed information to the Committees on Appropriations, and therefore must be submitted in a format with the necessary level of detail required by the Committee so that funding requests may be adequately analyzed. In order for the budget justifications to be of value to the Committee, NASA shall present the fiscal year 2007 budget justification with detailed information on the prior year, current year, and requested funding levels for each program, project or activity funded within each division and directorate in each account, and provide detailed information on all proposed changes being requested. NASA shall submit to the Committee not later than October 15, 2005, a template for its fiscal year 2007 budget justification document that complies with this direction.

The Committee also requests that NASA discontinue the practice of including the Integrated Financial Management Program (IFMP) within the General and Administrative portion of the budget. The Committee directs that NASA budget and manage the IFMP as a program in its own right, and to provide a breakout of the five-year budget for the IFMP and each of its elements as part of the annual budget submission to the Congress.

The Committee directs NASA to amend its operating plan procedures to make them consistent with the direction provided in Section 605 of the general provisions, which provides reprogramming guidelines for all of the Departments and agencies in this bill.

The Committee acknowledges NASA's need to restructure its human and physical capital assets. The Committee understands that NASA is currently developing separate detailed plans for both its human and physical capital assets that will allow NASA to reshape its workforce and capital asset portfolio to help ensure that it can implement its new vision and mission.

The Committee strongly believes that NASA needs to develop a comprehensive coordinated restructuring plan that addresses both its workforce and capital assets. After completion of this comprehensive restructuring plan, NASA needs to develop a roadmap for implementing the plan in a way that limits, to the maximum extent practicable, the disruptions to both the agency and the contractor community.

NASA has, in the past few months, used its buyout authority to promote voluntary separations as a first attempt at reshaping its workforce. The Committee believes that at this early stage, NASA has been able to reshape its workforce without losing critical workforce skills. The Committee directs that NASA should not go beyond this initial voluntary buyout stage until it has developed the comprehensive coordinated restructuring plan and implementation roadmap, and has provided a report to the Congress detailing the steps that will be taken in reshaping the agency's human and physical capital assets.

With respect to the agency's workforce, the Committee notes the impressive core competencies that exist at NASA's field centers, and directs the agency to fully utilize the competencies that reside at the field centers. NASA's field centers are an asset, and not a liability, for our nation. The Committee believes that NASA currently has, and must maintain, world-class scientists and engineers at its field centers. These scientists and engineers must continue to work at the cutting-edge of their disciplines so that they can remain world-class.

The field centers provide the technical expertise to support the formulation of NASA policy, the management of the agency, and the oversight of NASA contracts and grants. The expertise at the field centers plays a critical role in the definition, design, development, and operations of NASA's space and aeronautics assets. The Committee believes that the day-to-day project management activities of the agency should occur at its field centers, with NASA headquarters providing an appropriate oversight function. The Committee also notes the value of an appropriate amount of in-house technical work at the field centers, for the purpose of training young scientists and engineers, and for helping to ensure that the experienced NASA personnel at the field centers remain smart buyers for the taxpayers.

NASA's mission to research, investigate, and explore the limits of aeronautics and the outer reaches of space, is unique among Federal agencies. While NASA is a civilian agency, its pursuits and capabilities have a direct impact on the strategic and economic health of the nation. Too often, those who benefit most from NASA, the American people, are not aware of those successes, benefits and opportunities. The Committee directs NASA to engage in a national awareness campaign. The purpose of such a campaign is to provide NASA with a venue in various media (print, radio, television, Internet, etc.) to articulate missions, recent accomplishments and recruitment efforts to young Americans. This will also provide a mechanism by which to excite and encourage our young people to enter the fields of science, math, and engineering and in doing so help maintain America's leadership in these fields.

NASA possesses a unique capability among Federal government agencies in that it has its own television station. This station is carried nationally on cable television stations. The Committee believes this asset is significantly underutilized and could be used as a centerpiece in helping to excite the next generation of explorers in science. NASA has made numerous important discoveries in recent years as a result of the Hubble Space Telescope, the Mars Rovers, and the Chandra Space telescope to mention a few. NASA must take advantage of its television resources to inform and excite

the public about these discoveries. NASA television has for the most part in recent years been used almost exclusively as an internal communications medium. NASA must make more effective use of this capability if NASA is to be permitted to retain it. NASA is directed to develop an integrated communications plan for NASA television. This plan should have a major focus on educating and exciting the next generation of explorers. This plan is to be submitted to the Committee in conjunction with the submission of NASA's fiscal year 2007 budget request.

SCIENCE, AERONAUTICS AND EXPLORATION

(INCLUDING TRANSFER OF FUNDS)

NASA's Science, Aeronautics and Exploration (SAE) account provides funding for the Science, Exploration Systems, and Aeronautics Research Mission Directorates and Education programs. The SAE appropriation includes both the direct and the indirect costs supporting the Mission Directorates and Education Program, and provides for all of the research; development; operations; salaries and related expenses; design, repair, rehabilitation, and modification of facilities and construction of new facilities; maintenance and operation of facilities; and other general and administrative activities supporting SAE programs.

The Committee recommends $9,725,750,000 for science, aeronautics and exploration, an increase of $64,750,000 above the budget request and $265,050,000 above the fiscal year 2005 enacted level including emergency supplemental appropriations.

Increases above the budget request include $40,000,000 for science programs of which $30,000,000 is for the Glory mission and $10,000,000 is for the Space Interferometry Mission; $53,900,000 for aeronautics research programs; $2,000,000 for education programs; and $50,000,000 for other initiatives terminated in the request. Reductions to the budget request include $25,000,000 from exploration systems research and technology; $25,000,000 from human systems research and technology; and $31,050,000 from corporate administrative costs of which $10,000,000 is from the Office of Advanced Planning and Integration, which is being eliminated.

The Committee is very concerned about the reductions to NASA's science programs especially the drastic reductions to earth science programs designed to provide a better understanding of our planet. To paraphrase the National Academy of Sciences concerning these science programs, decades of research has improved health, enhanced national security, and helped generate economic growth by providing critical environmental information. While the National Academy is currently undertaking a decadal review of NASA's earth science programs, at the behest of the Congress the National Academy has provided an interim report detailing what it believes are short-term urgent science requirements.

The National Academy of Sciences notes "[t]he aggressive pursuit of understanding Earth as a system—and the effective application of that knowledge for society's benefit—will increasingly distinguish those nations that achieve sustained prosperity and security from those that do not. At NASA, the vitality of Earth science and application programs has been placed at substantial risk by rapidly shrinking budgets that no longer supports already-approved mis-

sions and programs of high scientific and societal relevance". To begin to address this shortcoming the Committee is providing $40,000,000 above the budget request. Within the funds provided for science, $35,000,000 is included for the Glory mission, an increase of $30,000,000 above the budget request. Without this additional funding, the amount designated in the fiscal year 2006 budget request would clearly have resulted in the unraveling of Glory as an integrated mission and resulted in a certain delay in the launch of key instruments several years beyond the planned launch date. NASA's Glory program is a key Global Climate Change Research Initiative (CCRI) mission and critical to the achievement of CCRI's science goals. The Committee understands that 2006 funding for the Glory mission will sustain the development of the critical Aerosol Polarimetry Sensor and the Total Irradiance Monitor Instrument and begin reintegration of the spacecraft bus. Development will also begin on the science data ground processing system. Critical Design Reviews for all aspects of the program—the instruments, the bus, and the ground system—will also be held in 2006.

The Committee applauds the decision by the Administrator to reassess a fourth servicing mission to the Hubble Space Telescope (HST). The Hubble Space Telescope has made numerous and extraordinary contributions to the field of science and has inspired a new generation's interest in space and space science. This mission is not only essential to maintaining the capability of the most scientifically successful space astronomy mission to date, it also provides for the least expensive approach to service Hubble and at the same time provides for the deorbit capability that will assure HST's safe reentry. Repairs and upgrades made during the fourth servicing mission would continue the telescope's dramatic discoveries that will serve as a legacy for NASA and our Nation.

The Committee continues to support the Space Interferometry Mission (SIM) and is providing an additional $10,000,000 over the budget request for this mission. NASA's search for planets and life beyond our solar system is having increasing and dramatic success with over 150 planets now discovered. SIM is expected to examine 2000–3000 stars for planetary systems to fulfill a critical step in the search for Earth-like planets. The Committee is providing these additional funds to help ensure that SIM's important mission is maintained.

The National Academy of Sciences Solar System Exploration Decadal Survey of planetary scientists concluded that the highest priority of the scientific community is an orbiter/lander mission to Jupiter's moon Europa. The Administration supported just such a mission, and had proposed that the first or second mission of the Prometheus Nuclear Systems and Technology Program would be the Jupiter Icy Moons Mission (JIMO). NASA no longer plans a JIMO mission for Project Prometheus because of funding and technical considerations, and because the NASA Administrator has determined that funding is needed for near-term nuclear power requirements to implement the President's vision for space exploration. Recognizing that these deep space missions usually take a decade to complete from design to orbit, the Committee supports NASA moving forward with a conventionally powered mission to Jupiter. The Committee urges NASA to consider incorporating a

non-nuclear Europa mission as part of its fiscal year 2007 budget request.

NASA is directed to submit a report to the Committee, within 120 days of enactment of this Act, that outlines efforts taken to date by NASA to detect and characterize the hazards of Earth orbit-crossing asteroids and comets, as well as an assessment of what actions would be necessary to put in place capabilities to expand detection and tracking of such Earth orbit-crossing objects as well as actions to address the potential threat from asteroid and comet impacts.

The Committee supports the valuable technology and education collaboration of the American Museum of Natural History and NASA to promote the public understanding of NASA's missions, support the development of the science and technology workforce needed for the 21st century, and to support NASA's strategic directions. The Committee urges NASA to continue this celebrative partnership in fiscal year 2006.

The Committee is extremely concerned about the direction NASA has taken in downsizing and restructuring its Aeronautics Research program. While the United States is reducing its Federal investment in aeronautics research our competitors are increasing their aeronautics research and development budgets and making competitiveness their number one priority. While the Committee strongly supports the President's new vision for robotic and manned exploration of the Moon, Mars, and beyond, it is imperative that we not forget the importance of aeronautics research to our domestic economy.

The Committee notes that NASA seems to have moved forward in transforming its aeronautics research program without regard to the recently released National Institute of Aerospace report developed by both industry and the science community and commissioned by the Congress to provide a detailed five-year research agenda for NASA's Aeronautics Research program, and the National Academy of Sciences review which will be available within the next 12 to 18 months. Based on these facts, the Committee believes that NASA's new aeronautics research agenda is premature.

To begin to address this issue the Committee has done the following:

Language is included in the general provisions directing the Administration to develop a National Aeronautics Policy to be delivered to the Congress with the submission of the President's 2007 budget request. The Committee believes that the lack of support for the Aeronautics Research program is related to the fact that there is no clear policy direction concerning the Federal government's role in the civil aviation industry.

The Committee has not agreed to the $53,900,000 funding reduction proposed by the Administration, but has instead funded the Aeronautics Research program at the fiscal year 2005 enacted level. The Committee directs that within 60 days of enactment of this Act NASA shall provide to the House and Senate Committees on Appropriations and the legislative committees of jurisdiction in the House and Senate a plan for how it intends to allocate aeronautics research funds for fiscal year 2006. Included in this plan should be a definition of work that enhances United States competitiveness; work that leads to additional breakthroughs including

rotorcraft and hypersonics, and work that continues to support NASA's exploration goals, such as the Planetary Aircraft Risk Reduction (PARR) project.

The Committee notes that the requested budget does not properly address the requirements for a heavy-lift launch capability that may be necessary to carry out space exploration beyond low-earth orbit. The Committee has been aware that NASA is assessing its launch requirements, and urges NASA to make a decision as expeditiously as is possible. NASA should report to the Committee, no later than 120 days after enactment of this Act, regarding NASA's heavy-lift launch requirements for exploration, and how it plans to meet those requirements.

The Committee also directs NASA to provide a report to the Committee, within 120 days after enactment of this Act, which lists the propulsion systems that will be required to implement Project Constellation. This report should include, but not be limited to, all elements of the earth-to-orbit propulsion systems, in-space propulsion systems, and propulsion systems for landing/ascent craft.

Within the fund provided for non-programmatic construction of facilities $10,000,000 is directed to the Institute for Scientific Research, Inc. for the continued construction of research facilities.

The Committee recommendation includes $50,000,000 above the budget request for the continuation of Congressional priority programs that were terminated in the NASA budget request. These funds will be used for science, aeronautics, education and other NASA-related programs, and will be allocated to individual projects in the statement of managers accompanying the conference report for this Act.

EXPLORATION CAPABILITIES

(INCLUDING TRANSFER OF FUNDS)

NASA's Exploration Capabilities (EC) account provides funding for the Space Operations Mission Directorate. The Space Operations Mission Directorate includes the International Space Station (ISS), the Space Shuttle Program, and Space and Flight Support. The EC appropriation includes both the direct and the indirect costs supporting the Space Operations Mission Directorate, and provides for all of the research; development; operations; salaries and related expenses; design, repair, rehabilitation, and modification of facilities and construction of new facilities; maintenance, and operation of facilities; and other general and administrative activities supporting the EC programs.

The Committee recommends $6,712,900,000 for exploration capabilities, a decrease of $50,100,000 below the budget request and $8,500,000 above the fiscal year 2005 enacted level.

Decreases below the budget request include $10,000,000 for the International Space Station (ISS). The Committee believes that this small reduction is appropriate given the uncertainties surrounding the nature and scope of the science to be conducted on the ISS. In addition, the Cargo and Crew Services program is reduced by $10,000,000. The Committee is very supportive of this program, but delays associated with program implementation will result in a significant percentage of the funds provided in fiscal year 2005 being carried forward into this fiscal year.

Reductions to this portion of the budget also include $10,000,000 from Rocket Propulsion Testing, $10,000,000 from Space Communications, and $10,000,000 from Launch Services. The reduction to Launch Services should not be taken from the Small Payload Launch program.

NASA notified the Committee last year that $26,000,000 had been budgeted in fiscal year 2005 for a replacement building for Building 4601 at the Marshall Space Flight Center. According to the agency, this building is an engineering office facility whose condition requires replacement rather than repair, based on a cost analysis performed by NASA. NASA noted that this project had scored high on its internal, competitive prioritization process for NASA's repair-by-replacement program. NASA notified the Committee of its intent to defer the construction of Building 4601. In response to a Committee inquiry for the record, NASA stated that the deferment of the construction of this replacement facility would only be for a few months as the project could be executed early in 2006 rather than late in 2005 as previously planned. However, the Committee was disappointed to find that this repair-by-replacement project was not included in NASA's fiscal year 2006 budget request, as the Committee was led to expect. Therefore, NASA is directed to reassess its decision to cancel this project, and to report to the Committee within 60 days after enactment of this Act, detailing how it intends to meet its commitment with respect to this project. At a minimum the Committee expects to see this construction project included in NASA's 2007 budget request.

OFFICE OF INSPECTOR GENERAL

The Inspector General Act of 1978 established the Office of Inspector General. The Office is responsible for providing agencywide audit and investigative functions to identify and correct management and administrative deficiencies that create conditions for existing or potential instances of fraud, waste, and mismanagement.

The Committee recommends $32,400,000 for the Office of Inspector General, the same as the budget request and $1,100,000 above the fiscal year 2005 enacted level.

ADMINISTRATIVE PROVISIONS

The bill includes five administrative provisions. The first provision allows for the funds to remain available until expended when an activity has been initiated for the construction of facilities. The second provision makes all amounts appropriated for construction of facilities available until September 30, 2008. The third provision provides transfer authority between its two appropriations accounts subject to the operating plan procedures. The fourth provision allows funds for authorized prizes to remain available without fiscal year limitation. The final provision incorporates by reference the programs, projects, and activities included in the report accompanying this bill.